



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/646,976

08/22/2003

Martin Lund

14218US02

1056

23446 7590 05/02/2008
MCANDREWS HELD & MALLOY, LTD
500 WEST MADISON STREET
SUITE 3400
CHICAGO, IL 60661

EXAMINER

PAN, JOSEPH T

ART UNIT

PAPER NUMBER

2135

MAIL DATE

DELIVERY MODE

05/02/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/646,976	Applicant(s) LUND, MARTIN	
	Examiner JOSEPH PAN	Art Unit 2135	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicant's response filed on January 22, 2008 has been carefully considered. Claims 1-24 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-5, 7, 10-12, 14-16, 18, 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Battle et al. (U.S. Patent No. 7,136,381 B2), hereinafter "Battle", in view of Kanno et al. (U.S. Patent No. 6,069,971), hereinafter "Kanno".

Referring to claim 1:

i. Battle teaches:

A method of providing physical port security in a digital communication system, comprising:

receiving a frame of digital data at a network device (see column 4, lines 62-67; and column 5, line 16-column 7, line 43 of Battle);

generating a destination port bit map [i.e., egress port table] based on the destination address information contained in said frame of digital data (see column 4, lines 62-67; and column 5, line 16-column 7, line 43, [i.e., the port bit map is generated based on the

packet's Opcode, the destination port ID, the destination module ID, and a corresponding entry in a table], of Battle, emphasis added);

comparing said destination port bit map with a physical port security bit map to generate a bit map of allowed destination ports, wherein said physical port security bit map [i.e., var:PORTBITMAP] is generated based on information in said received frame of digital data (see e.g. figure 6, element 'Does any port in var:PORTBITMAP belong to a trunk group in the trunk table', element 'Calculate the HASH using the DA [i.e., destination address] and SA [i.e., source near address] in the packet'; and column 6, lines 12-30, particular note 'RTAG 2 RTAG identifies the trunk selection criteria for this trunk group 0: based on DA [i.e., destination address] + SA [i.e., source address]', of Battle, emphasis added); and

forwarding said frame of digital data to one or more of said allowed destination ports (see column 6, lines 12-19 'The Trunk Group Table is used to derive the egress port when a packet has to go out on a trunk port', of Battle).

However, Battle does not specifically mention a separate physical security bit map.

ii. Kanno teaches a pattern comparison inspection system wherein Kanno discloses generate two separate bit maps and the compare the two separate bit maps (see figure 9; and column 9, lines 28-38 "of Referring to FIG. 9, design pattern data 108 is converted into a gray level bit map (i.e., a reference bit map) 31 by occupancy calculating portion 23 and gray level bit map generating portion 24. EB pattern data 109 is also converted into a gray level bit map (i.e., an inspected bit map) 32. **Bit map comparing portion 27 makes a comparison between reference bit map 31 and inspected bit map 32** and calculates an absolute value of each pixel value difference to generate a comparison result 33. It can be seen that the pixel value differences within comparison result 33 are all equal to or less than 0.50.", Kanno, emphasis added).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Kanno into the method of Battle to generate a separate physical security bit map.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Kanno into the system of Battle to generate a separate physical security bit

map, because Battle teaches using the information provided in a packet to generate a port bitmap, and then modifying the ports in the port bitmap by looking up the specific port(s) in the port bit map (see column 5, lines 48-55; and figure 6, of Battle). On the other hand, Kanno teaches comparing one bit map with another bit map so that "It can be seen that the pixel value differences within comparison result 33" (see column 9, lines 26-27 of Kanno, emphasis added). Therefore, Kanno's teaching could enhance Battle's system to find out which port(s) need to be added and/or removed.

Referring to claims 7, 18:

Battle and Kanno teach the claimed subject matter: a method of providing physical port security in a digital communication system (see claim 1 above). Battle further discloses the router (see column 1, line 41 of Battle).

Referring to claim 10:

Battle and Kanno teach the claimed subject matter: a method of providing physical port security in a digital communication system (see claim 1 above). Battle further discloses the process (see column 2, line 60 of Battle).

Referring to claim 11:

Battle and Kanno teach the claimed subject matter: a method of providing physical port security in a digital communication system (see claim 1 above). Battle further discloses that the bit map is generated dynamically (see column 5, lines 48-55 of Battle).

Referring to claims 3-5, 14-16, 23:

Battle and Kanno teach the claimed subject matter: a method of providing physical port security in a digital communication system (see claim 1 above). Battle further discloses the source address and the destination address of the digital data frame (see column 1, lines 43-49 of Battle).

Referring to claim 12:

i. Battle teaches:

A system for providing physical port security, comprising:

At least one processor within a network device, said network device having a communication port for receiving digital data from a digital communications system and two or more physical data ports for forwarding said digital data, said at least one of

Art Unit: 2135

processor enables (see column 4, lines 62-67; and column 5, line 16-column 7, line 43 of Battle):

Generation of a destination port bit map based on destination address information contained in said received digital data (see column 4, lines 62-67; and column 5, line 16-column 7, line 43, [i.e., the port bit map is generated based on the packet's Opcode, the destination port ID, the destination module ID, and a corresponding entry in a table], of Battle, emphasis added);

Comparing of said destination port bit map within a physical port security bit map to generate a bit map of allowed destination ports, wherein said physical port security bit map is generated based on information within said received digital data (see e.g. figure 6, element 'Does any port in var:PORTBITMAP belong to a trunk group in the trunk table', element 'Calculate the HASH using the DA [i.e., destination address] and SA [i.e., source near address] in the packet'; and column 6, lines 12-30, particular note 'RTAG 2 RTAG identifies the trunk selection criteria for this trunk group 0: based on DA [i.e., destination address] + SA [i.e., source address]', of Battle, emphasis added); and

Forwarding of said digital data to one or more of said allowed destination ports (see column 6, lines 12-19 'The Trunk Group Table is used to derive the egress port when a packet has to go out on a trunk port', of Battle).

However, Battle does not specifically mention a separate physical security bit map.

ii. Kanno teaches a pattern comparison inspection system wherein Kanno discloses generate two separate bit maps and the compare the two separate bit maps (see figure 9; and column 9, lines 28-38 "of Referring to FIG. 9, design pattern data 108 is converted into a gray level bit map (i.e., a reference bit map) 31 by occupancy calculating portion 23 and gray level bit map generating portion 24. EB pattern data 109 is also converted into a gray level bit map (i.e., an inspected bit map) 32. **Bit map comparing portion 27 makes a comparison between reference bit map 31 and inspected bit map 32** and calculates an absolute value of each pixel value difference to generate a comparison result 33. It can be seen that the pixel value differences within comparison result 33 are all equal to or less than 0.50.", Kanno, emphasis added).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Kanno into the method of Battle to generate a separate physical security bit map.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Kanno into the system of Battle to generate a separate physical security bit map, because Battle teaches using the information provided in a packet to generate a port bitmap, and then modifying the ports in the port bitmap by looking up the specific port(s) in the port bit map (see column 5, lines 48-55; and figure 6, of Battle). On the other hand, Kanno teaches comparing one bit map with another bit map so that "It can be seen that the pixel value differences within comparison result 33" (see column 9, lines 26-27 of Kanno, emphasis added). Therefore, Kanno's teaching could enhance Battle's system to find out which port(s) need to be added and/or removed.

Referring to claims 24:

Battle and Kanno teach the claimed subject matter: an intermediate network device (see claim 12 above). Battle further discloses that the bit map is dynamically altered based on a variable parameter (see column 5, lines 48-55 of Battle).

4. Claims 2, 6, 8-9, 13, 17, 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Battle et al. (U.S. Patent No. 7,136,381 B2) in view of Kanno et al. (U.S. Patent No. 6,069,971), and further in view of Wieget (U.S. Patent No. 6,484,261 B1).

Referring to claims 6, 17, 22:

i. Battle and Kanno teach the claimed subject matter: a method of providing physical port security in a digital communication system, (see claim 1 above). However, they do not specifically mention the IP address.

ii. Wieget teaches a graphical network security policy management wherein Wieget discloses the IP address (see column 2, lines 14 of Wieget).

iii. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Wieget into the method of Battle to use IP address.

iv. The ordinary skilled person would have been motivated to have applied the teaching of Wieget into the system of Battle to the IP address, because Battle teaches using the information provided in a packet to generate a port bitmap (see column 5, lines 48-55 of Battle). And IP address is the information contained in the packet. Therefore, Wieget's teaching could enhance Battle's system.

Referring to claims 2, 13:

Battle, Kanno, and Wieget teach the claimed subject matter: a method of providing physical port security in a digital communication system (see claim 1 above). They further disclose the logical AND (see column 18, line 7 of Wieget).

Referring to claim 21:

Battle, Kanno, and Wieget teach the claimed subject matter: an intermediate network device (see claim 12 above). They further disclose the IP data (see column 2, lines 14 of Wieget).

Referring to claims 9, 20:

Battle, Kanno, and Wieget teach the claimed subject matter: an intermediate network device (see claim 12 above). They further disclose the local area network (see column 10, line 52-55 of Wieget).

Referring to claims 8, 19:

Battle, Kanno, and Wieget teach the claimed subject matter: an intermediate network device (see claim 12 above). They further disclose the network file server (see column 10, line 52-55 of Wieget).

Response to Arguments

5. Applicant's arguments, filed on January 22, 2008, have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Kanno.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Pan whose telephone number is 571-272-5987.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached at 571-272-3859. The fax and phone numbers for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

Joseph Pan

April 28, 2008

/KIMYEN VU/

Supervisory Patent Examiner, Art Unit 2135